

CLEAN VERSION OF PARAGRAPH 2 ON PAGE 6DETAILED DESCRIPTION OF THE INVENTION

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The present invention provides a printed circuit board and a method for the production of a printed circuit board having fine-line circuitry and greater aspect ratio on a subcomposite with plated through holes. The method of this invention provides for full additive plating of fine-line circuitry on a printed circuit board having filled plated through holes. Fine-line circuitry means lines that have an aspect ratio greater than about 0.5 and preferably greater than about 1, wherein the aspect ratio is defined as the thickness of the circuit lines divided by the width of the spaces between the lines. That is, circuit lines are preferably about 1 mil or thicker and are separated by narrow spaces, that is, space widths as low as about 1 mil or lower based on the minimum widths that can be created by the photoresist coating. Referring to the drawings and initially to FIG. 1(a), there is illustrated a dielectric substrate 10 having a plurality of through holes 12 drilled throughout the substrate for connections to be made between the opposite sides of the substrate, the connections being well known in the art. FIG 1(b) shows a layer of electrically-conductive metal 14, preferably copper foil, laminated on the panel surfaces of dielectric 10 before through holes 12 are drilled to form subcomposite 16, and prior to additive plating. This lamination method may be used, for example, when better mechanical adhesion of electrically conductive metal to the dielectric is desired.